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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/756,680

01/10/2001

Richard Cam

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7590

11/03/2005

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EXAMINER

WONG, BLANCHE

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/756,680

Applicant(s)

CAM ET AL.

Examiner

Blanche Wong

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2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-14 is/are allowed.
- 6) ☐ Claim(s) 1 and 15 is/are rejected.
- 7) ☒ Claim(s) 2-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to cl. 1 and 11 have been considered but are moot in view of the new ground(s) of rejection.
2. Examiner reminds Applicants that the preamble and the by-product or advantages, are not positive limitations and are not given any patentable weights. – out-of-band portion – in the preamble with the mention of which in the limitation of cl. 1, and – whereby re-encoding of data and insertion of control information upon predetermined intervals is avoided – in cl. 1, ln. 9-10, and cl. 11, ln. 12-13, are not positive limitations and are not given any patentable weights.

Claim Objections

3. Claims 14 and 15 are objected to because of the following informalities:

With regard to cl. 14,

Examiner suggests replacing – a plurality of serial-in parallel out (SIPO) blocks – in ln. 3, with “a plurality of serial-in parallel-out (SIPO) blocks”.

Examiner suggests replacing – said SIPO blocks – in ln. 6, with “said plurality of SIPO blocks” in consistent with – a plurality of serial-in parallel-out (SIPO) blocks – in ln.

3.

Examiner suggests replacing – said data lines – in ln. 7, with “said plurality of data lines” in consistent with – a plurality of data lines – in ln. 1-2 and – said plurality of data lines – in ln. 3-4.

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Examiner suggests replacing – said registers – in ln. 8, 9, 11 and 12, with “said plurality of registers” in consistent with – a plurality of registers – in ln. 6.

Examiner suggests replacing – said transition detection blocks – in ln. 13, with “a plurality of transition detection blocks” in consistent with – a plurality of transition detection blocks – in ln. 11.

With regard to cl. 15,

Examiner suggests replacing – said registers – in ln. 9, 10-11, 12 and 13, with “said N registers” in consistent with – N registers – in ln. 6.

Examiner suggests replacing – said 17 transition blocks – in ln. 17, with “said 17 transition detection blocks” in consistent with – 17 transition detection blocks – in ln. 12.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claim 15** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear whether -- an ith bit output of said SIPO blocks – in ln. 7-8, is the ith bit output of each of said SIPO blocks because – each of said SIPO blocks [has]

separate bit outputs – in ln. 4-5 and there are – separate bit outputs of each of said SIPO blocks – in ln. 6-7.

It is unclear whether – outputs of said registers – in ln. 9, is outputs of all N registers as a whole or each of said N registers.

It is unclear whether – outputs from said 17 transition [detection] blocks – in ln. 17, is outputs of all 17 transition detection blocks as a whole or each of said 17 transition detection blocks.

6. **Claim 1** is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: transmitting out-of-band portion of said control information along a path for control/signaling from one said first and second layer devices to another of said first and second layer devices.

An out-of-band portion of control information or separate control channel/path is necessary so that -- re-encoding of data and insertion of control information upon predetermined intervals is avoided -- in cl. 1, ln. 9-10, and cl. 11, ln. 12-13. It can be seen in Specification on p. 11, para. 2, that -- [o]n both the transmit and receive interfaces, FIFO status information is sent separately from the corresponding data path. By taking the FIFO status information out-of-band, it is possible to decouple the transmit and receive interfaces so that each operates independently of the other. --. Furthermore, cl. 11, ln. 11, positively recites – transmitting FIFO status flow information out-of-band --. Therefore, without a means of transmitting out-of-band portion of control information or separate control/path, it would be impossible to -- [insert] in said data

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path a control of data path a control of data signal to identify when the data path contains control information and when it contains data -- in cl. 1, ln. 7-8 and -- whereby re-encoding of data and insertion of control information upon predetermined intervals is avoided -- in cl. 1, ln. 9-10.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claim 1** are rejected under 35 U.S.C. 102(b) as being anticipated by Wake et al. (U.S. Pat No. 5,323,298).

With regard to cl. 1 and 11, Wake discloses

transmitting the in-band portion of said control information along a path for data 10 (a transmission line) from one of said first and second layer devices to another of said first and second layer devices (Fig. 1A and 1B); and

inserting in said data path a control of data signal 20,21,22 (speech data frame, G3 control frame, formatted bit sync data, all outputs to the transmission line 10) to identify (each type of frame contains information of what is it, col. 3, ln. 32-col. 4, ln. 24; see also Fig. 2) when the data path contains control information and when it contains data.

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Allowable Subject Matter

9. Claims 11-14 are allowed.
10. Claims 2-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BW

BW

October 29, 2005


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2667

10/31/05